

Amendments to the Claims:

The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. – 6 (Cancelled)

7. (Currently Amended) A bonded body of a bonding member and a member to be bonded, which are used in a device for rotating the bonding member on which rotary disks are stacked and the member to be bonded serving as a rotary shaft in integral bonding:

wherein a portion, in the vicinity of the fitting portion of the member to be bonded, of the bonding member is pressurized at a load for generating a stress enough to plastically deform the material of the bonding member, ~~followed by~~ to effect preliminarily plastic bonding;

further the portion, in the vicinity of the fitting portion of the member to be bonded, of the bonding member is pressurized at a load in excess of an elastic limit of the material of the bonding member; and

a compression force in an axial direction of the to-be-bonded member is generated at the portion in the vicinity of the fitting portion of the bonding member, and then, part of the material of the fitting portion in excess of the elastic limit is allowed to plastic-flow in such a manner as to fill a clearance defined between the member to be bonded and the bonding member;

whereby the bonding member and the member to be bonded are tightly integrated with each other.

8. (Original) A bonded body of a bonding member and a member to be bonded as claimed in claim 7, wherein an annular groove is provided at the fitting portion of the to-be-bonded member to the bonding member.

9. (Original) A bonded body of a bonding member and a member to be bonded as claimed in claim 8, wherein a knurl is formed at the annular groove formed at the fitting portion of the to-be-bonded member to the bonding member.

10. (New) A mechanical apparatus provided with a bonded body of a bonding member and a member to be bonded, which are used in a device for rotating the bonding member on which rotary disks are stacked and the to-be-bonded member serving as a rotary shaft in integral bonding;

wherein a portion, in the vicinity of the fitting portion of the to-be-bonded member, of the bonding member is pressed to provide a plastically deformed part, which is in the vicinity of the fitting portion of the to-be-bonded member and is further pressed, ~~followed by~~ to effect plastic-flow bonding.

11. (New) A bonded body comprising a first metal member and a second metal member, wherein the body is produced by carrying out, after the first

metal member has been fitted in a bonding hole of a bonding portion of the second metal member, a preliminary plastic bonding between the first and second metal members by pressurizing a portion in the vicinity of the bonding portion of the second metal member under pressure sufficient to effect first plastic deformation of the second metal member; then further subjecting the portion in the vicinity of the bonding portion of the second metal member to a pressure in excess of an elastic limit of the second metal member; and generating a compression force in an axial direction of a pressurizing direction to plastically flow a part of the material in excess of the elastic limit into a clearance between the metal member and thereby integrate the first and second metal members.

12. (New) A mechanical apparatus provided with a bonded body of a first bonding metal member and second bonding metal member, the bonded body is produced by carrying out, wherein after fitting the first metal member in a bonding hole of a bonding portion of the second metal member, a preliminary plastic bonding between the first and second metal members by pressurizing a portion in a vicinity of a bonding portion of the second metal member under pressure sufficient to effect first plastic deformation of the second metal member after fitting the first metal member in a bonding hole of bonding portion of the second metal member; and further subjecting, after the first plastic deformation, the portion in the vicinity of the bonding portion to a second plastic bonding with

a pressure in excess of an elastic limit of the second metal member to integrate the first metal member and second metal member.

13. (New) The apparatus according to claim 12, wherein a compression force is generated in an axial direction of a pressurizing direction by pressurizing of the second plastic bonding so that a part of the material in excess of the elastic limit flows into a clearance between the metal members thereby to integrate the first and second metal members.

14. (New) An integrated bonded body, comprising a first bonding metal member and a rotating shaft, wherein the first bonding metal member has a bonding hole in which the rotating shaft is operatively arranged, a material of the first bonding metal member in the vicinity of the bonding hole having been plastically flowed into the rotating shaft side to form a preliminary bonding mark in the vicinity of the bonding hole.

15. (New) The integrated bonded body according to claim 14, wherein an annular groove is provided in the bonding portion of the shaft, and is filled with the second material that plastically flows into the bonding hole in the vicinity thereof.

16. (New) The integrated bonded body according to claim 14, wherein a plurality of annular grooves is provided in the bonding portion of the shaft and is filled with the material that plastically flows into the bonding hole.

17. (New) The integrated bonded body according to claim 16, wherein the two grooves constitute the plurality of grooves.

18. (New) The integrated bonded body according to claim 15, wherein the groove has a triangular cross-section.

19. (New) The integrated bonded body according to claim 15, wherein the structure of the body results from a compression force having been imparted to the groove and a stress having been imparted to a portion other than the groove.

20. (New) The integrated bonded body according to claim 14, wherein the bonding member comprises a material having a deformation resistance smaller than that of the shaft.